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ABSTRACT

This study was conducted to determine the strength of the relationship between handicapped students who are mainstreamed into regular vocational education programs as a result of an evaluation recommendation and their retention in that program, as opposed to students who are enrolled without this recommendation. An individualized follow-up study was undertaken with 37 students of the Work Adjustment and Training Center for the Handicapped (WATCH) in the Cincinnati Public Schools between September 1978 and June 1980. These students had received vocational education training at WATCH prior to being mainstreamed into the Cincinnati schools. Comparisons were made between students who were evaluated and recommended for mainstreaming, and students who were evaluated and did not receive a favorable recommendation for mainstreaming, but who were placed into vocational education programs over the evaluators' recommendations. Successful student placement was based on four criteria: attendance, grade point average, work habits, and performance with regard to program competencies. Analysis of data gathered on the students showed no significant differences at the .05 levels between the two groups. However, there were definite trends toward better performance by the recommended group on all factors measured. In addition, almost all of the students have maintained passing grades well into their senior year, suggesting that handicapped students can, indeed, be successful in regular vocational education programs. The study also suggested that the evaluation process itself may be helpful to the success of both recommended and nonrecommended students by screening out inappropriate vocational choices. (KC)

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A FOLLOW-UP STUDY ON THE RELATIONSHIP BETWEEN VOCATIONAL EVALUATORS' RECOMMENDATIONS AND STUDENT PLACEMENT IN VOCATIONAL EDUCATION PROGRAMS

Dennis P. Ryan

A project submitted to
the College of Education
Department of Vocational Education
Kent State University in
partial fulfillment for teacher
certification requirements for
Vocational Evaluators in the
State of Ohio
1981

Teacher Educator: Dr. Grant Rudicill

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CHAPTER I

INTRODUCTION

Statement of Problem

Vocational evaluation services have expanded rapidly into educational settings during the past ten years. Vocational educators responding to the mandate that handicapped students be educated and that they have equal opportunity for vocational education and employment have implemented vocational evaluation as a diagnostic screening process.

The introduction of vocational evaluation programs into school systems was due chiefly to the 1968 Vocational Education Amendments that specified that 10% of all federal monies to vocational education be used for education of the handicapped. Other laws which effect the education of the handicapped ensued in later years including: Public Law 94-482, The Education Amendments of 1976, Public Law 94-142, The Education of All Handicapped Children Act of 1975, and the Rehabilitation Act of 1973, section 503 and 504. The Vocational Amendments further specify how the 10% federal vocational funds must be spent and require a 10% match of state and local funds. These

funds must be used to the maximum extent possible to place the student in the least restrictive educational environment whether that be a regular or vocational education program. The Vocational Amendments require that vocational programs for handicapped students be consistent with the state plan requirements under the Education of All Handicapped Children Act (E.H.C.). These requirements state that every handicapped student must have an individualized education plan and that the students be integrated with regular students wherever feasible. Vocational education was faced with finding a method of diagnosis and referral. Here then is where vocational evaluation services have been seen as a method of providing an assessment of a handicapped student's vocational potential for mainstreaming into regular vocational education programs, offering suggestions for developing or modifying the student's individualized education plan (I.E.P.), assisting in providing multi-factored psychological assessment for placement into special programs, or assisting with job placement services.

Vocational evaluation in school settings has been patterned as a habilitative service for students much

like it developed in rehabilitation settings for handicapped clientele, where its purpose is to help identify handicapped or disadvantaged individuals' strengths and weaknesses (Hoffman, 1970). Much of what currently exists in terms of the theory and practice of vocational evaluation in school systems has been extracted from that which is practiced in rehabilitation settings. The goal of the professional evaluator in the school is to aid the students in reaching a realistic and acceptable occupational decision.

Through evaluation, students hopefully personalize information regarding their current abilities, potential, and interest in order to reach an appropriate occupational choice. The learning is acquired primarily through the assessment process, because it involves many more of the senses than traditional teaching which relies primarily on hearing and seeing. In evaluation, at least the third sense of touching is involved through the manipulation of parts of the samples, and in some instances taste and smell may be involved as well (as example, Singer Systems' baking sample). This heightens the learning process because it is a hands-on equipment type of experience. Students learn

more quickly much of what a particular occupation requires.

To determine whether evaluation recommendations, if followed, lead to greater success in vocational education programs over non-recommended students, follow-up information is necessary. A review of the literature in this emerging field offers little evidence of research into the effectiveness of the vocational evaluation process. To determine whether vocational evaluation recommendations are predictive of possible success for a student in the least restrictive environment in vocational education the following study was undertaken.

PURPOSE

The primary purpose of this study is to determine the strength of the relationship between students who are mainstreamed into regular vocational education programs as a result of an evaluation recommendation and their retention in that program, as opposed to students who are enrolled without this recommendation. Individualized follow-up was undertaken with thirty-seven students all of whom were

evaluated at the Work Adjustment & Training Center for the Handicapped (W.A.T.C.H.), Cincinnati Public Schools, sometime between September, 1978 and June, 1980. These students were enrolled sometime during the 1980-1981 school year in vocational education programs.

This study concerns itself with only students who received a vocational evaluation at W.A.T.C.H. and were later identified on vocational program class lists as being mainstreamed into regular vocational education programs within Cincinnati Public Schools. Comparisons were made between students who were evaluated and recommended for mainstreaming, and students who were evaluated and did not receive a favorable recommendation for mainstreaming, but who were placed into vocational education programs over the evaluators' recommendations. Successful student placement is based on four criteria, two of which are objective (attendance and grade point average--GPA) and two based on subjective judgments of the vocational instructors (work habits and performance with regard to program competencies). Since the instructor comes in daily contact with the student, he/she is the most appropriate person to make a judgment about success. Also the vocational instructor is responsible for placement of the student in

employment upon graduation, making them familiar with the necessary work habits and competencies indigenous to that occupational area and the availability of jobs in the community.

HYPOTHESIS

The hypothesis of this study is that students who go through the vocational evaluation process and are recommended for mainstreaming into vocational education programs are more successful than those who go through the evaluation process and are not recommended for mainstreaming but who are placed into a vocational education program over the evaluators' recommendation. The null hypothesis is that the recommendation of the evaluators has no relationship, bearing, or effect on the success of a student in a vocational education program. Thus, the study is designed to examine the effect of the Vocational Evaluation Program at W.A.T.C.H. through long term follow-up.

Special Needs (handicapped) students who have received vocational evaluation services during the tenth grade and

are recommended for mainstreaming into regular vocational education programs will differ significantly on four factors over students who were not recommended for enrollment in a vocational education program.

The level of performance of the students will be measured by the following criteria:

1. Attendance record of the student for the first semester of the 1980-1981 school year
2. Level of performance as measured by the first semester grade assigned by the vocational instructor for the first semester of 1980-1981 school year
3. Skill development and employability as evaluated by the vocational instructor
4. Evaluation of the student's worker traits as rated by the vocational instructor.

DELIMITATIONS

The study will be conducted in five district high schools of the Cincinnati Public Schools. Only 11th and 12th grade handicapped students who have been evaluated and who were enrolled in vocational education programs at the beginning of the 1980-1981 school year will be included in the research.

For purposes of the study fourteen evaluated students who were recommended for vocational education programs will be compared with twenty-three students who were not recommended for vocational education programs to determine differences in grades, attendance in program, skill development, and worker trait differences. The vocational education teachers will complete a separate questionnaire for each student enrolled in their program. Results of this study are based exclusively of the vocational teacher and therefore are subject to intra-program, curriculum, and teacher differences. The questionnaire does not identify those students who received favorable or unfavorable recommendations by the vocational evaluators, however, the vocational instructors may have knowledge of the recommendations by the evaluation team as a result of staffing conferences, IEP conferences, reading the students cumulative record containing the evaluation report or through discussions with school personnel. This factor could affect the responses of the vocational instructor in completing the questionnaire.

Other influencing factors involve the attitudes, knowledge, and experiences the student brings with him to

the evaluation, as well as the evaluator's. The placement of students into the two groups for study involved subjective interpretation, on the author's part, regarding the evaluation report recommendations in cases where the student is not definitely recommended or not recommended. The recommendation,or absence of it, for students with a marginal prognosis for success was based on a variety of factors which may interact to form the basis of the decision.

The students' self concept, attitude, and interest in the vocational evaluation process are also factors which affect the outcome and recommendation and are in most cases beyond the control of this study.

CHAPTER II

LITERATURE REVIEW

The funding of vocational evaluation services for handicapped students has expanded rapidly in school settings within the past ten years in the state of Ohio under the auspices of Special Needs/Vocational Education. However, in Ohio formalized studies have not been conducted which demonstrate its utility as a diagnostic/screening process for vocational education mainstream candidates. Recent developments have generated increased interest in both process follow-up and program evaluation; these include: decreased revenues at the local, state, and federal level for vocational education, accountability for students' educational programs, and programming and manpower usage.

In the field of vocational evaluation very minimal research has been undertaken to assess the value of providing vocational evaluation. This is particularly absent within school evaluation programs. Even in the rehabilitation field where vocational evaluation originated, few studies exist which attempt to measure the predictive validity of recommendations

made by work evaluators concerning the vocational potential of clients/students.

While many in-school vocational evaluation programs in Ohio conduct follow-up on students evaluated in their programs, the majority of this follow-up is short term in nature and is not shared among school districts. Much of this data is contained in year-end reports and is not of a comparative nature. In reviewing the literature pertaining to follow-up information on the relationship between work evaluators' recommendations and successful client/student placement, most of the existing studies emanate from the field of rehabilitation.

Handelsman and Wurtz (1971) found a positive relationship between evaluator recommendations and subsequent adjustment in twenty-nine clients; the majority of whom were classed as retarded. They categorized the clients as possessing either a "favorable" or "unfavorable" prognosis, and found that none of the clients who had been labeled "unfavorable" were successfully employed. Rosenberg and Usdane (1963) reported

a follow-up of 534 handicapped individuals evaluated by the TOWER System in which 132 were recommended for competitive employment and 402 for further training. Of those recommended for immediate job placement, 70% were successfully employed for at least three months. Of those recommended for further training, 87% were employed at the criterion of at least three months on the job. Miller (1958) reported a correct prediction rate of 74% for sixty-two Goodwill Industry clients. Hallenbeck and Campbell's (1975) follow-up of 200 vocational rehabilitation clients regarding employability potential revealed a 70.5% overall consistency between recommendations and follow-up status.

Williams (1975), in her paper entitled "A Follow-up Study on the Relationship Between Work Evaluators' Recommendations and Client Placement" found a positive and significant relationship between successful placement of clients by DVR counselors and the following of work evaluators recommendations. It was found that 68% of the DVR counselors surveyed followed work evaluators' recommendations in placing their clients. Of those clients whose counselors followed the recommendations,

92% were successfully placed. The counselors who placed their clients outside of the evaluators' recommendations comprised 32% of those surveyed. A 28% successful placement rate was shown by this group.

In their survey of follow-up procedures in rehabilitation facilities, Mason, Andrew, and Dunn (1975) view follow-up studies as being extremely important. They regard them as the best way of evaluating the effectiveness of services provided by facilities. Feedback on client outcome is a vital tool in determining the effectiveness of recommendations as well as checking client progress in rehabilitation.

In the educational field laws which govern the education of the handicapped (PL94-142, etc.) have not focused on multi-factored assessment to the degree where vocational evaluation has been seen as an integral part of the diagnosis or placement of student in education programs. Many programs serve only to increase the students' knowledge of self in order to help them make a better vocational choice.

Menz (1978) investigated the effects of a vocational evaluation program on the vocational and school behaviors of reluctant learners. Data was collected in the form of ratings of student attitudes, behavior, and vocational development in the form of grades. Menz was able to demonstrate a statistically significant improvement in grade point average (GPA) for one year after evaluation. This study was found to have a more consistent impact on vocational development than on school behaviors.

The present study reports a follow-up of students who participated in work evaluation during the tenth grade to determine success in vocational education programs in the eleventh and twelth grades.

CHAPTER III

PROCEDURES

POPULATION and SUBJECTS

The Work Adjustment and Training Center for the Handicapped (WATCH) provides vocational assessment, work adjustment, and job placement services to handicapped students of the Cincinnati Public Schools. All students must meet State guidelines with respect to handicapping conditions, and must want to participate to be eligible for the program. Students served in vocational evaluation have a wide variety of vocationally handicapping conditions including mental retardation, physical disability, learning disability, and an emotional or behavioral handicap.

Under project guidelines and established priority, the Vocational Evaluation program at WATCH serves tenth grade pupils from the Cincinnati Schools who are handicapped. The evaluation is designed to help students learn more about the suitability to them of various vocational programs, and to determine who can profit from mainstreaming into regular

vocational programs. The objective is met by identifying the students' functional competencies and functional limitations and making recommendations which suggest the least restrictive educational alternative.

The sample of subjects for this research was selected from the total number (176) of tenth graders evaluated for a five day period between September, 1978 and June, 1980. Thirty-seven of these students were enrolled for some period in vocational education programs in one of five different schools offering vocational education programs during the 1980-1981 school year. All students who entered vocational education programs and who received a vocational evaluation at WATCH were included in this study.

The study group consisted of thirty-seven (N=37) students; nineteen males and eighteen females, ranging in age from 15-17 years.

METHODS and INSTRUMENTS

The data collection instrument used in this research was a questionnaire developed by the author. The questionnaire was distributed only to the vocational education instructors with students in their programs who had been evaluated at WATCH. The instrument was field tested on the staff at WATCH and input was solicited from Vocational Education Special Needs supervisory personnel from the Cincinnati Public Schools. Several modifications were made as a result of this review which eased data collection and clarified the purpose of the questionnaire.

The questionnaire/rating scale was designed in order to gather information on student grades, attendance, progress toward employment, and worker traits.

The questionnaire was distributed to the vocational instructor in charge of each student followed-up via inter-school mail. A second questionnaire was sent in the event of no response. Telephone calls and in-person visits to the

vocational instructor were used as a last resort to collect information.

Successful student placement in a vocational program was based on the judgment of the vocational education teacher regarding grades, attendance, skill development, and worker traits. Since the vocational teacher is ultimately responsible for the placement of students into employment in the community, they were viewed as the most appropriate person to make a judgment regarding student progress.

For purposes of the research, success was defined as:

1. Retention in the program to date of this study
2. Passing grade for the first semester or two quarters of the 1980-1981 school year
3. Acceptable attendance according to Cincinnati Public School standards
4. Acceptable progress toward employment or skill development
5. Favorable worker traits (Average score of 2.0 or better on a Likert scale).

STATISTICAL HYPOTHESIS

It is hypothesized that there is no statistical difference in performance between students who go through the evaluation process and are recommended for mainstreaming into a vocational education program and those not recommended for such programs but who are placed into vocational education programs over the evaluators recommendations when considering the following factors:

1. Retention in the program to date of this study
2. Passing grade for the first semester or two quarters of the 1980-1981 school year
3. Acceptable attendance according to Cincinnati Public School standards
4. Acceptable progress toward employment or skill development
5. Favorable worker traits (Average score of 2.0 or better on a Likert scale).

DEFINITION of TERMS

Vocational Education - An organized educational program designed to provide youth and adults with saleable manipulative skills and related technical knowledge, work habits, safety judgments, and attitudes sufficient to enter and make progress in a socially useful occupation.

Special Needs - Vocational Education for disadvantaged and handicapped persons through the Education Amendments of 1976 (PL-482) shall include special educational programs and services designed to enable the disadvantaged or handicapped persons to achieve vocational education objectives that would otherwise be beyond their reach as a result of their disadvantaged condition. These programs and services may take the form of modifications of regular programs, special educational services which are supplementary to regular vocational education programs designed only for the disadvantaged or handicapped persons.

Employability - The ability to function in competitive employment. The term includes both the ability to adequately perform on the job tasks and to adequately adjust to the psychosocial climate of the job.

Follow-Up - (NARI) - Supportive assistance during the initial stage of a new program of job placement and which may determine to what degree the past and present programs are adequate to meet client/student needs and/or ascertain the readiness of clients/students to benefit from new programs.

Follow-Up Information - Data collected after services provided.

Cooperation - Works well with co-workers and supervisors. Does jobs and changes tasks without complaint. Works together with others in joint effort to complete work (i.e., assembly line work).

Follows Written Instruction - The ability to comprehend simple written materials at approximately a 6th grade reading level and to interpret and utilize them to complete satisfactorily a work sample or job requirement.

Follows Verbal Instructions - The ability to understand simple oral instructions and to utilize them to complete satisfactorily a work sample or job.

Follows Diagrammed Instructions - The ability to comprehend a drawing or sketch and to utilize it to complete satisfactorily a work sample or job.

Report - Vocational Evaluation - A well planned, carefully written means of communicating vital vocational information about a client/student. It is a studied, permanent record of significant vocational data observed as a client/student and an evaluator interact in various types of work or work-like situations. It puts the plan, action, findings, logic, and interpretation of the evaluation in writing. It usually includes a picture of the client/student's worker traits and how they compare to minimal requirements of selected jobs or work areas, physical capacities, learning ability, personal characteristics, social competence, other vocational factors, and recommendation for further services. It may also provide a prescriptive-descriptive sequence of experiences which are aimed at maximizing an individual's vocational potential.

Vocational Evaluation - (Work Evaluation) - Is the:

1. Process of observing behaviors and interpreting them against some criterion.

2. Process of assessing what an individual does and how well he does it, i.e., his potential vocation (grounded in interests, abilities, needs, and opportunities) against some criterion.
3. One function of a personalized service delivery system that obtains and synthesizes information pertinent to persons with vocational problems to assist them in identifying and planning (an) appropriate vocation(s).
4. A comprehensive process that systematically utilizes work, real or simulated, as the focal point for assessment and vocational exploration, the purpose of which is to assist individuals in vocational, psychological, social, educational, cultural, and economic data in the attainment of the goals of the evaluation process. (Tenth Institute on Rehabilitation Services)
5. A specialized form of clinical assessment, requiring a specialized technology and environment, requiring a period of several days or weeks of close observation and judgment characterized by the use of real or simulated work tasks and activities in a situation which simulates some of the demands of work environments.

Worker Traits - Those aspects of behavior in a work setting that enable a person to meet the demands of this job in accordance to employment standards. This includes such areas as: attendance, punctuality, hygiene, social behavior, team work, cooperation, ability to accept constructive criticism, ability to accept supervision, effort, initiative, perseverance, dependability, meeting work schedules, attention to detail, housekeeping, neatness in work performed, care with materials and property, and safety awareness.

Vocational Handicap - Any barrier which impedes an individual from achieving his/her vocational objective. The barrier may be a physical disability, a psychological problem, or may be caused by economic, educational, or cultural deprivation.

Vocational Potential - The level and area of achievement an individual may attain vocationally after appropriate training and preparation.

Success in a Vocational Education Program - Success is defined as:

1. Retention in the program to date of this study
2. Passing grade for the first semester or two quarters of the 1980-1981 school year
3. Acceptable attendance according to Cincinnati Public School standards
4. Acceptable progress toward employment or skill development
5. Favorable worker traits (Average score of 2.0 or better on a Likert scale).

ANALYSIS of DATA

The statistical test used to test the hypothesis was the t-Test for a difference between two independent means. The t-Test was selected because each of the two groups (recommended for vocational education and not recommended for vocational education) are independent. A confidence level of .05 was selected for the rejection of the null hypothesis.

CHAPTER IV

RESULTS

RESULTS of the STUDY

Of the forty-five surveys sent to the field, a total of thirty-seven were received, representing an 82% return rate. This provided the basis for **N**. In order to examine the difference between groups, letter grades were converted to numerical values.

Insert Table 1 about here

As the computation shows, the value of t=1.636 falls beneath the .05 level of significance. The null hypothesis is not rejected.

Insert Computation about here

It is concluded that there is no significant difference in grades between the recommended and non-recommended groups.

Further computational analysis of the other factors (attendance, skill development, and worker traits) showed no significant differences at the .05 level.

DISCUSSION

With the acceptance of the null hypothesis, and rejection of the alternative hypothesis, the results of this study indicate no significant difference in grades, attendance, skill development, and worker traits between students who are recommended for vocational education programs and those who do not receive a positive recommendation as a result of a vocational evaluation.

As can be seen in Table 1, the recommended group of students performed better overall with respect to all factors measured. This trend toward better grades, attendance, skill development, and worker traits probably results from their greater potential demonstrated during the vocational evaluation.

CHAPTER V

CONCLUSIONS

CONCLUSIONS from RESULTS

It may be concluded as a result of this study that students who go through the vocational evaluation process at WATCH and are recommended for mainstreaming into vocational education programs do not perform significantly better than students who are not recommended for vocational education as a result of a vocational evaluation. While the study fails to support the hypothesis as stated at the outset of this study, it should be noted that there are definite trends toward better performance by the recommended group on all factors measured. It is also interesting to note that the majority of the handicapped students mainstreamed into regular vocational education programs have maintained passing grades, some well into their senior year. This may allay many of the concerns that handicapped students cannot be successful in regular vocational education programs and that vocational instructors are not receptive to this group of students. Of the thirty-seven students followed-up in this study, seven are no longer in vocational education programs, with only four students withdrawing because of failing grades.

This suggests that vocational education instructors feel handicapped students can be successfully integrated into vocational education programs and be considered employable upon graduation.

One of the major questions resulting from this study is why is there only a marginal difference between the recommended and non-recommended group in performance. It would seem that the vocational evaluation program is not able to predict with any certainty which students will be successful in vocational education programs. Several extraneous variables need to be considered before concluding that vocational evaluation is not a worthwhile process for students. First, it must be remembered that the vocational instructors are under the mandate of law (94-142) to include handicapped students in their programs. The fact that only four students failed and the overall grade agerage was "D" for the non-recommended group may reflect pressure from the law or the local school district to pass or "social promote" students even though they may have very marginal vocational skill. This variable may very well place an artificial constraint

on the differences between the recommended and non-recommended group. In addition this study is based on the subjective judgement of the vocational education instructors and does not take a long range view of the student once he/she enters the world of work. It would be interesting to conduct further research to determine the success of the students once they graduate. Additional constraints include the fact that many handicapped students who demonstrate very strong or very marginal vocational potential are not referred to vocational evaluation. These students enter or are excluded from vocational education on the basis of an administrative decision exclusive of vocational evaluation. This leaves a group of students who represent those examined in this study who may have marginal potential for success. It becomes a more difficult job to accurately predict which students can be successful.

Because the majority of the handicapped students followed in this study have been successful in the vocational education programs which they selected, the real value of vocational evaluation reverts back to the self- knowledge and task knowledge acquired by the student during the evaluation. Thus, it is a type of error correcting experience, wherein the

student participates in selection-rejection decision-making by eliminating occupations that are not interesting. Success also comes from the viability and accuracy of the information acquired by the evaluator and shared with the student. In this regard, the evaluation sets the stage for success by determining interests and matching interests with abilities.

CHAPTER VI

RECOMMENDATIONS

Based on the results and conclusions drawn from this research, it would appear useful to follow-up on these students again in one to two years to determine their employability once in the community. All of the students followed were either eleventh or twelfth graders, and their success is based on the perceptions of their vocational teachers.

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TABLE 1

CONVERSION OF SURVEY DATA

FOR t-TEST COMPUTATION

RECOMMENDED GROUP

Subject	Grade Voc-Ed Lab	Grade Related Class	Number of Days Absent	Satisfactory Progress in Skill Development	Does Student Have Skill Potential for Employment	Does Student Seek Help From Instructor Asst.	Oral Instruction	Written Instruction	Work Without Supervision	Ability to Get Along With Co-Workers	Co-operation With Instructor	Attitude Toward Work
1	.75	.50	21-30	Y	Y	Y	3	2	3	3	4	4
2	3.00	2.00	0-5	Y	Y	Y	2	1	2	3	3	3
3	1.75	--	21-30	Withdrew								
4	2.50	1.00	11-20	Y	Y	Y	3	2	1	3	4	4
5	1.00	1.50	0-5	N	Y	Y	2	2	2	2	2	2
6	2.00	2.50	11-20	Y	Y	Y	4	2	3	3	3	3
7	Withdrew											
8	2.00	2.00	6-10	Y	Y	Y	3	3	4	4	4	4
9	2.00	1.00	11-20	Y	Y	Y	2	2	2	2	2	2
10	3.00	3.00	6-10	Y	Y	Y	3	3	3	4	4	4
11	2.00	2.50	11-20	Y	Y	Y	3	3	3	2	3	3
12	2.00	1.00	11-20	limited	Y	N	2	2	2	3	3	2
13	4.00	4.00	0-5	Y	Y	N	3	3	4	4	2	4
14	Withdrew											

NON-RECOMMENDED GROUP

Subject	Grade Voc-Ed Lab	Grade Related Class	Number of Days Absent	Satisfactory Progress in Skill Development	Does Student Have Skill Potential for Employment	Does Student Seek Help From Instructor Asst.	Oral Instruction	Written Instruction	Work Without Supervision	Ability to Get Along With Co-Workers	Co-operation With Instructor	Attitude Toward Work
1	2.00	2.00	0-5	limited	Y	N	2	2	3	3	2	2
2	1.00	1.00	21-35	N	Y	Y	2	1	2	3	3	3
3	3.00	3.00	0-5	Y	Y	Y	4	1	2	3	4	4
4	1.37	.60	6	Y	Y	Y	2-3	1-3	2-4	2-3	3	3
5	2.00	1.00	21-30	Y	Y	Y	3	3	2	3	3	4
6	0.00	0.00	6-10	N	Y	Y	4	4	4	3	3	4
7	2.00	X	24	Y	Y	Y	4	1	2	3	4	4
8	2.00	2.50	11-20	Y	Y	Y	3	2	2	2	3	4
9	3.00	0.00	0-5	N	Y	Y	4	1	2	2	4	4
10	3.00	2.75	0-5	Y	Y	Y	1	2	2	3	4	4
11	2.00	2.00	11-20	Y	Y	Y	3	2	3	4	4	4
12	1.75	2.00	18	N	Y	N	2	2	3	4	4	4
13	1.75	1.00	6-10	Y	Y	N	1	1	3	4	4	4
14	1.00	1.00	6-10	Y	Y	Y	3	1	3	3	3	4
15	0.00	1.00	11-20	N	Y	Y	1	1	2	2	2	3
16	2.00	2.50	6-10	Y	Y	Y	4	3	3	4	4	4
17	2.00	3.50	6-10	Y	Y	Y	3	2	2	4	4	4
18	2.00	.50	11-20	Y	Y	Y	3	1	2	3	3	3
19	Withdrew											
20	1.00	1.00	0-5	N	Y	N	1	1	1	2	3	3
21	2.00	1.00	0-5	Y	Y	N	2	2	2	3	3	3
22	X	X	21-30	N	Y	N	2	2	1	2	2	1
23	1.00	1.50	11-20	Y	Y	N	2	2	3	2	1	2

T-Test Computation

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left[\frac{\Sigma X_1^2 - \frac{(\Sigma X_1)^2}{N_1} + \Sigma X_2^2 \frac{(\Sigma X_2)^2}{N_2}}{(N_1 + N_2) - 2}\right]\left[\frac{1}{N_1} + \frac{1}{N_2}\right]}}$$

$$t = \frac{2.16 - 1.63}{\sqrt{\left[\frac{64.88 - \frac{676}{12} + 76.00 - \frac{1286}{22}}{(12 + 22) - 2}\right]\left[\frac{1}{12} + \frac{1}{22}\right]}}$$

$$t = \frac{.53}{\sqrt{\left[\frac{64.88 - 56.33 + 76.00 - 58.45}{34 - 2}\right]\left[\frac{11}{132} + \frac{6}{132}\right]}}$$

$$t = \frac{.53}{\sqrt{\left[\frac{8.55 + 17.55}{32}\right]\left[\frac{17}{132}\right]}}$$

$$t = \frac{.53}{\sqrt{\left[\frac{26.10}{32}\right]\left[\frac{17}{132}\right]}}$$

$$t = \frac{.53}{\sqrt{\left[.8156\right]\left[\frac{17}{132}\right]}}$$

$$t = \frac{.53}{\sqrt{\left[.8156\right]\left[.1288\right]}}$$

$$t = \frac{.53}{\sqrt{.1050}}$$

$$t = \frac{.53}{.3240}$$

$$t = 1.636$$

CINCINNATI PUBLIC SCHOOLS
Department of Curriculum and Instruction
VOCATIONAL EDUCATION BRANCH
230 East Ninth Street
Cincinnati, Ohio 45202

April 1, 1981

TO: Vocational Staff Member Addressed

FROM: John H. Owen, Assoc. Dir., Vocational Education

RE: Enclosed questionnaire

The attached questionnaire could be very helpful to the staff at W.A.T.C.H. in evaluating and improving its services.

It will certainly be very helpful to me in completing end-of-year reports and in requesting that these services continue. Therefore, I urge you to respond. Also, if any part of it is not clear or easy to answer, would you please contact Dennis Ryan for clarification? (My thanks to him for developing the form and tabulating the data.)

Attachment

W.A.T.C.H.
Queen City Vocational Center - Highlands
2423 Eastern Avenue
Cincinnati, Ohio 45202
(513) 961-2645

SPECIAL NEEDS - VOCATIONAL EDUCATION
FOLLOW-UP QUESTIONNAIRE/RATING SCALE

School _____
Instructor _____

Since Vocational Evaluation is a relatively new process in helping to determine a student's potential for mainstreaming into vocational education, we should try to evaluate its usefulness. Your opinion can be helpful in shaping the program.

Please indicate on this questionnaire/rating scale the requested information and your agreement or disagreement with each statement for the following student: _____. Please complete this form even if the student is no longer in your program. If this student is no longer in your program, please respond to applicable questions based on his/her performance while in attandance.

1. Is this student still enrolled in _____
   Voc. Ed.? If not, why not? _____

2. What was this student's grade average for the first two quarters of the 1980-81 school year for the 3-4½ hour lab in his or her Voc. Ed. Program? ..... Grade Average — Circle One: A B C D F X I

3. What were the student's grades for the related class over these same first two quarters? ..... Write In Grades: _____ _____

4. How many days was this student absent during the first two quarters of the 1980-81 school year from the Voc. Ed. program? ..... No. of Days Absent — Circle One: 0-5 6-10 11-20 21-30+

5. Do you feel this student is making satisfactory progress in skill development in your program? ..... YES NO

6. Do you feel this student is capable of learning sufficient skill to make him/her employable? ..... YES NO

7. Does this student regularly seek help from the special needs instructor assistant? ..... YES NO

Please rate the importance to your vocational training of each of the following worker traits.

1. Poor 2. Fair 3. Good 4. Excellent

	Circle One			
Ability to follow and retain oral instructions	1	2	3	4
Ability to follow and retain written instructions	1	2	3	4
Ability to work without supervision	1	2	3	4
Ability to get along with other students	1	2	3	4
Cooperativeness with instructor	1	2	3	4
Attitude toward work	1	2	3	4

Thank you. Please return in pony within one week to Dennis Ryan at W.A.T.C.H.